

Rothamsted Research - Barley Diversity Collection

At Rothamsted Research we have assembled a Barley Diversity (RBD) collection comprising 1090 landraces and non-current cultivars (i.e. those acquired or released prior to the 1940s). The accessions in this collection differ in growth habits and other morphological characteristics and originated from 83 countries spread over six continents. Large number of novel variant *eIF4E* gene alleles (Hofinger et al., 2009, Theor. Appl. Genet., 119: 851-865; Hofinger et al., unpublished data) have been identified in the RBD collection in the recent study supported by the grant BBE0071981 from the Biotechnology and Biological Sciences Research Council (BBSRC) of the United Kingdom (“Innovation in Crop Science - Exploitation of Genetics for Sustainability” initiative). This suggests the assembled collection captures a high proportion of the genetic diversity stored in large seed banks, and therefore it represents a valuable resource for the identification of useful novel alleles of other agronomically important genes. We are willing to provide access to this population and related resources. For example, total RNA extracted from all 1090 accessions, small amount of 1st strand cDNA prepared using oligo(dT) priming for most accessions in the collection, and freeze-dried leaf material for DNA extraction, to any interested researcher in the UK or overseas on a collaborative, first come – first served basis.

Researchers interested to use the RBD collection are encouraged to contact Dr. Kostya Kanyuka (kostya.kanyuka@bbsrc.ac.uk) or Prof. Kim Hammond-Kosack (kim.hammond-kosack@bbsrc.ac.uk) at Rothamsted Research, Harpenden, AL5 2JQ, UK (<http://www.rothamsted.bbsrc.ac.uk/index.html>).